These experiments were conducted at the Regent Street Polytechnic Biological Laboratory; and I have to thank Mr. G. P. Mudge for many kind hints as to my methods of working.

VI.—On the Birds of Bulawayo, Southern Rhodesia. By E. C. Chubb, Assistant Curator, Rhodesia Museum, Bulawayo.

The material upon which this paper is based has mostly been collected by myself and others for the Rhodesia Museum during the last eighteen months, although it has been thought worth while, for the sake of completeness, to include in it a number of birds belonging to Mr. R. Douglas, which he has allowed me to examine. These are distinguished by an asterisk.

Bulawayo is situated on the water-parting which divides the Limpopo from the Zambesi River basin, at an altitude of 1450 feet above the sea. The geological formation upon which it rests is schist, while there are outcrops of granite at several places within three or four miles of the town, e.g. at the Hillside Kopjes and at the Waterworks Reservoirs.

Encircling the town for a radius of about three miles is the "Commonage," where most of the specimens have been collected, but a number of birds and nests have been obtained at Belle Vue Farm, where I am now living, some four miles south of Bulawayo. The Commonage consists of fairly thick Bush, composed largely of Acacia horrida and other leguminous trees, and several species of Combretum, while Copaifera mopani is common on the granite soil. These trees are all small, averaging in height from eight to ten feet; the absence of large trees being due to the fact that fifteen years ago, prior to the occupation of the country by the White Man, the Commonage was under cultivation by the natives belonging to the chief Lebengula's kraal, the site of the kraal being now occupied by the present town.

The annual rainfall of Bulawayo ranges between 20 and

30 inches, and practically all of this falls during the summer months, viz. from October to March. On account of the elevation of the town and its situation on the water-parting, the rainfall is rapidly drained away, and it is only where artificial dams have been built, as at the Waterworks, that there are any permanent sheets of water.

Although well within the tropics, the small number of really tropical species occurring here is remarkable, and may probably be accounted for by the high altitude and dry climate.

The Whitethroat (Sylvia cinerea) and the Senegal Coucal (Centropus senegalensis) are now recorded for the second time from South Africa, while the following sixteen species appear to be new to Southern Rhodesia:—

Glareola melanoptera.
Ardetta payeri.
Dendrocygna viduata.
Halcyon albiventris.
Coccystes serratus.
Erythropygia zambesiana.
Dryodromas fulvicapilla.
Eremomela polioxantha.

Camaroptera sundevalli. Fiscus subcoronatus. Anthus vaalensis. Mirafra nigricans. Hypochera funerea. Pyrcmelana taha. Coccopygia dufresnii. Oriolus larvatus.

The dominant native race in this the Western Division of Southern Rhodesia is the Matabele, a branch of the great Zulu nation, which in 1836, under the leadership of Mziligazi, came up from the south, conquered the various tribes then living in the country, and settled among them, taking their women for wives and their children as slaves.

These natives take a great interest in the animals and birds around them, having separate names for most of the species. But it is the young boys who are most conversant with the names of the smaller and less conspicuous birds; for at this age most of their time is spent in herding cattle and sheep, and they observe and talk about the birds that they see.

I have given the Matabele names to as many species as I have been able. In reading these names, C and Q are to be pronounced like the Zulu "clicks": the former is much

the same sound as "tut," which we often use to indicate vexation. The "q" click is very similar to the "pop" of a cork when extracted from a bottle.

I have to express my best thanks to Dr. Bowdler Sharpe, who has been good enough to look over this paper and has identified a number of species for me, and also to Mr. F. P. Mennell, the Curator of the Rhodesia Museum, for much assistance and encouragement.

1. Francolinus coqui.

Francolinus coqui Stark & Scl. Birds S. Afr. iv. p. 197. "Iswempi."

Fairly common throughout the year and breeds here. It begins to pair at the end of October, and lays from four to eight eggs in a slight hollow in the grass.

2. Francolinus shelleyi.

Francolinus shelleyi Ogilvie-Grant, Ibis, 1890, p. 348; Stark & Scl. Birds S. Afr. iv. p. 208.

"Inkwali."

This bird, known locally as the "Redwing," occurs on the granite kopies at Hillside, three miles from the town. It pairs at the end of October, and half-grown birds may be seen at the beginning of May. It lays from five to ten eggs in a slight hollow in the ground. The covey consists of from three to ten brace.

3. Pternistes swainsoni.

Pternistes swainsoni Stark & Scl. Birds S. Afr. iv. p. 217. "Isikwehli."

A common resident. It has no particular breedingseason, and its nests may be found at all times throughout the year. These are formed of grass, and placed under bushes or in the bed of a river. Nine appears to be the full complement of eggs.

4. Coturnix delagorguii.

Coturnix delayorguei Stark & Scl. Birds S. Afr. iv. p. 224. Common during the summer months, and sometimes arrives in abnormal numbers.

5. Numida coronata.

Numida coronata Stark & Scl. Birds S. Afr. iv. p. 227.

"Itendeli."

This Guinea-fowl is very common a few miles away from Bulawayo, and it is occasionally met with on the Commonage.

6. TURNIX LEPURANA.

Turnix lepurana Stark & Scl. Birds S. Afr. iv. p. 238. "Ugonqo."

Not uncommon here during the greater part of the year.

7. Turtur semitorquatus.

Turtur semitorquatus Stark & Scl. Birds S. Afr. iv. p. 167. a. J. May 11, 1908. "Injeba."

8. Turtur capicola.

Turtur capicola Stark & Scl. Birds S. Afr. iv. p. 169.

a. d. April 24, 1907. "Icelegwana."

b, c. ♀♀. May 18, 1908.

This Dove is extremely common throughout the year, and is quite a pest to the natives when their crops are ripening.

9. Turtur senegalensis.

Turtur senegalensis Stark & Scl. Birds S. Afr. iv. p. 172.

a. March 4, 1907. "Ijuba."

This Dove is almost as common as the preceding, and resembles it very much in habits.

10. ŒNA CAPENSIS.

Œna capensis Stark & Scl. Birds S. Afr. iv. p. 174.

"Umjova" and "Umkombazana."

A common resident. It is very tame, and may often be seen walking about on the gravel paths in gardens.

11. CREX PRATENSIS.

Crex pratensis Stark & Scl. Birds S. Afr. iv. p. 246. Rather plentiful during its winter stay.

12. GALLINULA ANGULATA.

Gallinula angulata Stark & Scl. Birds S. Afr. iv. p. 264. a. \(\sigma \). Jan. 11, 1902.

*b. 3. Dec. 15, 1907.

Specimen a was taken with a nest and five eggs. The latter are creamy white with numerous pin-point spots and a few larger spots, all of chocolate-colour.

13. Fulica cristata.

Fulica cristata Stark & Scl. Birds S. Afr. iv. p. 270. a. July 8, 1907.

14. Podicipes capensis.

Podiceps capensis Stark & Scl. Birds S. Afr. iv. p. 513. a. 3. Sept. 1, 1907.

15. STEPHANIBYX CORONATUS.

Stephanibyx coronatus Stark & Scl. Birds S. Afr. iv. p. 355.

Rather uncommon close to the town, although I saw a flock of about a dozen individuals on the road one evening towards the end of June. They rose with a whistling cry.

16. Cursorius temmincki.

Cursorius temmincki Stark & Scl. Birds S. Afr. iv. p. 325.

a. 9. June 1, 1907.

*b. 3. June 10, 1908.

17. RHINOPTILUS CHALCOPTERUS.

Rhinoptilus chalcopterus Stark & Scl. Birds S. Afr. iv. p. 329.

*a. ♀. Nov. 26, 1907.

18. ŒDICNEMUS CAPENSIS.

Œdicnemus capensis Stark & Scl. Birds S. Afr. iv. p. 315. a. \, July 17, 1908.

19. GLAREOLA MELANOPTERA.

Glareola melanoptera Stark & Scl. Birds S. Afr. iv. p. 333. a. Jan. 11, 1908.

This example is moulting into the adult plumage, but it still shews traces of that of the young bird.

20. Lophotis ruficrista.

Otis ruficrista Stark & Scl. Birds S. Afr. iv. p. 290.

"Umswiliswili."

Occasionally occurs close to the town.

21. Eupodotis kori.

Otis kori Stark & Scl. Birds S. Afr. iv. p. 308.

"Ichemi."

This Bustard occasionally approaches very close to the town and has several times been seen on the Commonage.

22. CICONIA ALBA.

Ciconia alba Stark & Scl. Birds S. Afr. iv. p. 37.

*a. ♀. Dec. 8, 1907. "Ingabezane."

The White Stork appears in large flocks during the rains.

23. Scopus umbretta.

Scopus umbretta Stark & Scl. Birds S. Afr. iv. p. 51.

a. \$. Sept. 24, 1907. "Tegwane."

This individual had a nest in a high tree close to the water's edge at the Waterworks reservoirs. It was of the usual type—a huge mass of sticks, with an entrance-hole on one side. The bird has also been seen in the very heart of the town.

24. LEPTOPTILUS CRUMENIFERUS.

Leptoptilus crumeniferus Stark & Scl. Birds S. Afr. iv. p. 46.

Three examples were seen near the town on Feb. 5, 1908, one of which was shot by Mr. R. Douglas.

25. NYCTICORAX GRISEUS.

Nycticorax griseus Stark & Scl. Birds S. Afr. iv. p. 82.

a. Juv. July 21, 1907.

26. BUTORIDES ATRICAPILLA.

Butorides atricapilla Stark & Scl. Birds S. Afr. iv. p. 80.

a. d. Nov. 25, 1907.

b. d. June 9, 1908.

SER. IX .- VOL. III.

27. ARDETTA PAYESI.

Ardetta payesi Stark & Scl. Birds S. Afr. iv. p. 86.

a. ♀. Jan. 11, 1908.

28. DENDROCYCNA VIDUATA.

Dendrocygna viduata Stark & Scl. Birds S. Afr. iv. p. 124.

a. ♂. April 1, 1908. "Idada."

b. \(\cdot \), ,,

29. PHALACROCORAX AFRICANUS.

Phalacrocorax africanus Stark & Scl. Birds S. Afr. iv. p. 9. I have seen this bird several times at the Waterworks.

30. Plotus rufus.

Plotus rufus Stark & Scl. Birds S. Afr. iv. p. 13.

*a. ♀. Feb. 29, 1908.

This specimen was shot while in company with one other at the Waterworks.

31. SERPENTARIUS SECRETARIUS.

Serpentarius secretarius Stark & Scl. Birds S. Afr. iii. p. 402.

"Udwai."

Occasionally seen near the town, usually in pairs. A nest was found about four miles east of Bulawayo on July 20, 1908. It was a loose platform of sticks, about twenty feet from the ground, in a tree known to the natives as "umlaladwai" (literally, "the sleeping-place of the Secretary Bird"). In the nest were the remains of a large snake and a pellet of fur; while on the ground beneath were found the skulls of a wild cat and a meerkat with numerous bones of hares. I examined the stomach of a female that had been shot as it left the nest and found therein bones and fur of mice, a large lizard and several small ones, and also a quantity of locusts.

32. Gyps kolbii.

Gyps kolbii Stark & Scl. Birds S. Afr. iii. p. 383.

" Ilinqi."

I saw a number of what I took to be these birds feeding on the carcase of a horse on the Commonage in March 1907.

33. MELIERAX GABAR.

Melierax gabar Stark & Scl. Birds S. Afr. iii. p. 364.

a. ♀. May 19, 1907.

*b. ♀. March 2, 1908.

34. AQUILA RAPAX.

Aquila rapax Stark & Scl. Birds S. Afr. iv. p. 294.

a. ♀. July 2, 1908.

This female was shot at the nest, which was a huge structure of branches and twigs formed on the top of a thorn-tree (Acacia nigrescens) about forty feet from the ground. When I visited it on the following day, the male had taken the place of his (late) mate on the nest. It contained one "oval" egg, white with very indistinct blotches of grey. This Eagle preys chiefly on hares, of which there were numerous remains on the ground below the nest.

35. AQUILA WAHLBERGI.

Aquila wahlbergi Sundev. Œfvers. K. Vet.-Akad. Handl. Stockh. 1850, p. 109 (1851); Stark & Scl. Birds S. Afr. iii. p. 296.

a. ♀. Sept. 22, 1907.

b. J. Nov. 20, 1907.

36. Eutolmaëtus pennatus.

Eutolmaëtus pennatus Stark & Sel. Birds S. Afr. iii. p. 298.

a. Oct. 30, 1907.

b. J. Nov. 15, 1907.

37. Spizaëtus bellicosus.

Eutolmaëtus bellicosus Stark & Scl. Birds S. Afr. iii. p. 301.

a. April 13, 1908. "Ukozi."

b. d. April 21, 1908.

38. Helotarsus ecaudatus.

Helotarsus ecaudatus Stark & Scl. Birds S. Afr. iii, p. 314.

"Inqunqulu."

I frequently see this bird sailing overhead near the town. Its head always appears to me to be directed vertically downwards as it scans the ground immediately below, and not bent backwards along the breast, as is stated to be the case by Millais in his 'Breath from the Veldt.'

39. MILVUS ÆGYPTIUS.

Milvus ægyptius Stark & Scl. Birds S. Afr. iii. p. 336.

a. Nov. 28, 1907. "Umzwazwa."

b. Nov. 28, 1907.

These two birds were shot from among numbers that were following swarms of locusts.

40. FALCO BIARMICUS.

Falco biarmicus Stark & Scl. Birds S. Afr. iii. p. 269.

a. d. Oct. 1, 1907. "Uhelwani."

41. TINNUNCULUS RUPICOLA.

Tinnunculus rupicolus Stark & Scl. Birds S. Afr. iii. p. 276.

*a. \(\text{\text{\text{\text{March 5, 1908.}}}

*b. ♀. ,, ,,

42. Bubo maculosus.

Bubo maculosus Stark & Scl. Birds S. Afr. iii. p. 249.

a. ♂. "Isikova," a name applied to all, except the very small, Owls.

b. Oct. 15, 1907.

This Owl makes its appearance just after sunset. I frequently see it in the twilight, perched on the tops of trees. When thus sitting, its horns are erected perpendicularly or, if anything, slightly inclined inwards, and it is evidently on the alert for the slightest rustle among the grass below. During the day it usually sits among the branches of a thick tree, but sometimes rests in the long grass. Its cry is a double hoot, consisting of two different notes slurred together.

43. Bubo lacteus.

Bubo lacteus Stark & Scl. Birds S. Afr. iii. p. 252.

Not uncommon. Its loud booming hoot is frequently heard in the evening.

44. Scops capensis.

Scops capensis Stark & Scl. Birds S. Afr. iii. p. 254.

a. ♂. May 31, 1908.

Rare; this is the only example of this Owl that I have met with. Locusts and other insects were in the stomach.

45. Scops leucotis.

Asio leucotis Stark & Scl. Birds S. Afr. iii. p. 243.

There is a dilapidated skin belonging to this species in the collection. It was obtained near the town some few years ago.

46. GLAUCIDIUM PERLATUM.

Glaucidium perlatum Stark & Scl. Birds S. Afr. iii. p. 257. a. J. May 26, 1908. "Umandugulu."

Not at all uncommon.

The stomach of this specimen was full of large white caterpillars. The note of this little Owl is remarkable, and is frequently heard just after sunset; although I have listened to it early in the afternoon. It consists of an ascent of the octave in clear distinct notes and then a slurred descent in one prolonged note. It may be represented thus:—



47. STRIX FLAMMEA.

Strix flammea Stark & Scl. Birds S. Afr. iii. p. 237.

a. d. June 22, 1907.

b.—. ", ",

c. ♀. ", ",

Common; often found in the disused mine-shafts on the Commonage.

48. PŒOCEPHALUS TRANSVAALENSIS.

Poicephalus meyeri transvaalensis Neum. Ornith. Monatsb vii. p. 25 (1899).

Pæocephalus meyeri Stark & Scl. Birds S. Afr. iii. p. 487.

a. Sept. 30, 1907.

*b. ♀. Dec. 25, 1907.

49. Coracias garrulus.

Coracias garrula Stark & Sel. Birds S. Afr. iii. p. 46.

Specimens were obtained in January, February, and March.

50. Coracias caudatus.

Coracias caudatus Stark & Scl. Birds S. Afr. iii. p. 48.

*a. May 6, 1908. "Ifefe."

*b. May 10, 1908.

Common.

51. Coracias olivaceiceps.

Coracias olivaceiceps Sharpe, Cat. B. M. xvii. p. 25 (1892).

Coracias mossambicus Stark & Scl. Birds S. Afr. iii. p. 51.

a. ♀. May 7, 1908. "Itjegela."

By no means rare, though much less common than the preceding species. The stomach of an example examined was full of locusts.

52. CERYLE RUDIS.

Ceryle rudis Stark & Scl. Birds S. Afr. iii. p. 73.

A pair of these birds may generally be seen on the lower reservoir at the Waterworks. I have observed them fishing in their characteristic manner—hovering Hawk-like at some distance from the water, and suddenly darting down upon their piscine victims.

53. CERYLE MAXIMA.

Ceryle maxima Stark & Scl. Birds S. Afr. iii. p. 76.

a. Aug. 21, 1905.

b. Dec. 2, 1907.

54. Corythornis cyanostigma.

Corythornis cyanostigma Stark & Scl. Birds S. Afr. iii, p. 81.

a. April 15, 1907.

b. June 6, 1907.

Common; to be seen along every river and stream.

55. HALCYON ALBIVENTRIS.

Halcyon albiventris Stark & Scl. Birds S. Afr. iii. p. 86.

a. ♀. Nov. 22, 1907.

The stomach of this individual contained the remains of crabs.

56. Lophoceros epirhinus.

Lophoceros epirhinus Stark & Scl. Birds S. Afr. iii. p. 114.

a. d. July 14, 1907. "Igoro."

Fairly common; seen singly and also in parties.

57. LOPHOCEROS LEUCOMELAS.

Lophoceros leucomelas Stark & Scl. Birds S. Afr. iii. p. 118.

a. d. May 6, 1907. "Igoro."

This, like the preceding species, is frequently met with on the Commonage.

58. UPUPA AFRICANA.

Upupa africana Stark & Scl. Birds S. Afr. iii. p. 10.

*a. d. Jan. 4, 1908.

b. J. April 24, 1908.

Not uncommon, and appears to have been rather more plentiful during the last few months—March, April, May, and June. As a rule it is solitary, though sometimes two are met with together; but I have never seen it in flocks. It is certainly a shy bird and difficult to approach.

59. Irrisor viridis.

Irrisor viridis Stark & Scl. Birds S. Afr. iii. p. 14.

I saw two examples of this beautiful species on May 23rd; they flew across the road in front of me as I was cycling into town. Since then I have seen it on two or three occasions. The flight is rather heavy and slow, but even—the tails being carried almost horizontally.

60. MELITTOPHAGUS MERIDIONALIS.

Melittophagus meridionalis Stark & Scl. Birds S. Afr. iii. p. 67.

a. 9. Aug. 10, 1907.

*b. ♀. Feb. 29, 1908.

61. Merops apiaster.

Merops apiaster Stark & Scl. Birds S. Afr. iii. p. 57.

a. ♂. March 23, 1907. "Inkonjane inkulu" (=large Swallow).

*b. ♀. Nov. 24, 1907.

*c. \(\cdot \), ,,

*d. \(\cdot \). Feb. 29, 1908.

Very common during its stay here, from the middle of October to the beginning of April.

62. MEROPS NATALENSIS.

Merops natalensis Reichenb. Handb. Merop. p. 78, pl. 451 (1852).

Merops nubicoides Stark & Scl. Birds S. Afr. iii. p. 62.

a. Nov. 15, 1907.

b. Nov. 22, 1907.

Numbers of these birds were seen at the Umguza River, three or four miles from town, on several occasions during last November.

63. Cosmetornis vexillarius.

Cosmetornis vexillarius Stark & Scl. Birds S. Afr. iii. p. 42.

*a. d. Nov. 24, 1907. "Inabanaba," applied to all Nightjars.

64. CAPRIMULGUS RUFIGENA.

Caprimulgus rufigena Stark & Scl. Birds S. Afr. iii. p. 34. a. J. Nov. 23, 1907.

65. Caprimulgus fossii.

Caprimulgus fossei Stark & Scl. Birds S. Afr. iii. p. 39.

a. 9. March 5, 1907.

I believe that this is our commonest Nightjar. It is found squatting on the ground at night-time, while during the day it may often be flushed in thick grass.

66. Colius erythromelon.

Colius erythromelon Stark & Scl. Birds S. Afr. iii. p. 99. "Isogonono."

This, the only species of the genus occurring here, is rather common. It is usually seen flying in parties of from six to twelve. Its flight is very steady and even, but not particularly rapid, as has been stated by one author. The tail during flight is usually carried at an angle of about 45° to the horizontal.

It has been pointed out to me that a party of these birds always roosts in the same tree, night after night. It is a thorn-tree (Acacia horrida).

A young example, although apparently in the ordinary adult plumage, except for its short tail (5.75 inches), had the bill grey; the cere and bare skin round the eye greyish.

67. Schizorhis concolor.

Schizorhis concolor Stark & Scl. Birds S. Afr. iii, p. 219 "Umguwe."

The "Go-away bird," as it is called, is fairly common, and often to be seen perched on the topmost branches of trees, uttering its well-known cry, which has suggested both the English and native names.

68. Centropus senegalensis.

Centropus senegalensis Stark & Scl. Birds S. Afr. iii. p. 206.

*a. &. Nov. 9, 1907.

Iris reddish orange; legs and bill black.

This species has only once been previously recorded from South Africa. It was obtained by Buckley at Bamangwato, Bechuanaland, in 1874.

69. Coccystes serratus.

Coccystes serratus Stark & Scl. Birds S. Afr. iii. p. 199.

a. d. Nov. 20, 1907.

*b. March 22, 1908.

This species appears never to have been recorded from Southern Rhodesia before.

70. Coccystes hypopinarius.

Coccystes hypopinarius Stark & Scl. Birds S. Afr. iii, p. 197.

a. d. Nov. 20, 1907. "Inkanku."

b. ♀. ,, ,,

Not uncommon during the rainy season. In addition to its loud whistle-like call, it has a low cackling cry which is said by the natives to portend heavy rain.

71. Coccystes Jacobinus.

*coccystes jacobinus Stark & Scl. Birds S. Afr. iii. p. 195. *a. &. Nov. 9, 1907.

72. Lybius torquatus.

Lybius torquatus Stark & Scl. Birds S. Afr. iii. p. 157.

a. March 1, 1907. "Isiqoqoto," a name applied to Barbets and Woodpeckers.

b. d. April 30, 1908.

73. TRICHOLEMA LEUCOMELAS.

Tricholæma leucomelas Stark & Scl. Birds S. Afr. iii. p. 160.

"Isiqoqoto."

Very common. A nest of this species was found at Belle Vue on Feb. 17th, 1908. It was simply a circular hole in the trunk of a tree without lining-materials, and contained four young.

74. BARBATULA EXTONI.

Barbatula extoni Stark & Scl. Birds S. Afr. iii. p. 168.

*a. 3. Feb. 29, 1908.

*b. ♀. ", "

75. Trachyphonus cafer.

Trachyphonus cafer Stark & Scl. Birds S. Afr. iii. p. 170. a. \(\rightarrow \). July 6, 1907.

76. Thripias namaquus.

Thripias namaquus Stark & Scl. Birds S. Afr. iii. p. 138.

a. d. June 18, 1908. "Isiqoqoto."

Fairly common. This example was caught in a recently bored hole in the trunk of the common thorn-bush (Acacia horrida). Its testes were very much enlarged, and looked as though the bird was about to breed.

77. DENDROPICUS CARDINALIS.

Dendropicus cardinalis Stark & Scl. Birds S. Afr. iii. p. 135.

a. d. Sept. 24, 1907. "Isiqoqoto."

This example appeared to be nesting; it was shot as it entered a hole in a branch of an *Euphorbia* tree.

78. CHELIDON URBICA.

Chelidon urbica Stark & Scl. Birds S. Africa, ii. p. 278.

Two examples of the House-Martin were shot on April 7th, 1908, at the Waterworks, three miles from town. They were with a flock of Swallows at the time.

79. HIRUNDO RUSTICA.

Hirundo rustica Stark & Scl. Birds S. Afr. ii. p. 289.

- a. d. March 9, 1907. "Inkonjane."
- b. March 9, 1907.
- c. ♀. Feb. 17, 1908.

The Common Swallow began to arrive here about the middle of October, and the greater number of them left again about the beginning of April, although a few were seen as late as April 27th and 28th.

80. HIRUNDO SEMIRUFA.

Hirundo semirufa Stark & Scl. Birds S. Afr. ii. p. 301.

I saw several examples of this species flying over a reservoir at the Waterworks on Jan. 5th last. Their flight is very different from that of the Common Swallow (*H. rustica*), and they reminded me rather of Bee-eaters on the wing.

81. Bradyornis mariquensis.

Bradyornis mariquensis Stark & Scl. Birds S. Afr. ii. p. 238.

- a. ♂. May 2, 1908.
- b. May 13, 1908.
- c. d. May 15, 1908.

82. Muscicapa grisola.

Muscicapa grisola Stark & Scl. Birds S. Afr. ii. p. 240.

a. Jan. 11, 1908.

The Spotted Flycatcher arrived here at the beginning of November last summer, and did considerable damage to the grapes in the gardens during its stay.

83. Parisoma subcæruleum.

Parisoma subcæruleum Stark & Scl. Birds S. Afr. ii. p. 75.

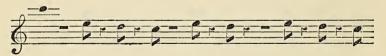
- *a. ♀. Nov. 16, 1907.
- *b. &. Dec. 4, 1907.
 - c. ♀. Jan. 28, 1908.
 - d. Feb. 3, 1908.

Specimens were obtained in November, December, January, and February.

84. BATIS MOLITOR.

Pachyprora molitor Stark & Scl. Birds S. Afr. ii. p. 255. "Ishlutu."

By no means uncommon. Generally seen sitting on or hunting among the branches of bushes, where its characteristic cry is frequently heard. This is ably described by Capt. Boyd Alexander thus: "a clear flute-like note in a high key being first uttered, followed in succession by three others, each descending a tone in scale, the rendering of which is very true, while between the notes a distinct interval is made." I find, however, that it sometimes misses one or two of the triple notes. In music this cry would be rendered as follows:—



85. Pycnonotus Layardi.

Pycnonotus layardi Stark & Scl. Birds S. Afr. ii. p. 63. "Igwiko" and "Isigwenula."

An extremely common resident; breeding with us.

86. Turdus litsitsirupa.

Turdus litsitsirupa Stark & Scl. Birds S. Afr. ii. p. 173. *a. ♀. Feb. 22, 1908.

87. ERYTHROPYGIA LEUCOPHRYS.

Erythropygia leucophrys Stark & Scl. Birds S. Afr. ii. p. 225.

a. ♀. Jan. 12, 1908.

88. Erythropygia pœna.

Erythropygia pæna Stark & Scl. Birds S. Afr. ii. p. 223. *a. &. Nov. 22, 1907.

89. ERYTHROPYGIA ZAMBESIANA.

Erythropygia zambesiana Stark & Scl. Birds S. Afr. ii. p. 224.

Termites were found in the stomachs of two examples examined.

90. SAXICOLA FAMILIARIS.

Saxicola familiaris Stark & Scl. Birds S. Afr. ii. p. 201.

- a. 3. March 22, 1907.
- b. d. May 5, 1907.
- c. d. Jan. 28, 1908.

91. CAMPICOLA PILEATA.

Saxicola pileata Stark & Scl. Birds S. Afr. ii. p. 196.

- a. d. Feb. 15, 1908. "Umgawana."
- b. d. April 27, 1908.
- c. 9. June 2, 1908.

A very common and familiar bird in and around Bulawayo. It may often be seen in the roads, especially during the winter months, or seated on the fences and telegraph-wires. When upon the ground it often stands bolt upright, looking very stately, and all the while jerking its wings and tail. It is by no means shy; on the contrary, it will not attempt to fly away until one gets within two or three feet of it, and then it only flies a short distance and settles again. Its coloration renders it very inconspicuous on the dark red schist soil of Bulawayo. I once saw a Drongo (Dicrurus afer) chasing one of these birds, and the Wheatear was uttering most pitiful cries.

92. CISTICOLA RUFICAPILLA.

Cisticola ruficapilla Smith, Ill. Zool. S. Afr., Aves, pl. 73. fig. 1 (1842).

Cisticola aberrans Stark & Scl. Birds S. Afr. ii. p. 143.

a. March 4, 1907.

I took a nest of this species at Belle Vue on Feb. 20th, 1908. It contained three pale blue eggs finely spotted with light red, measuring 15.5×12 mm. The nest was cupshaped and circular $(2\frac{1}{2})''$ internal diameter) and built of soft grass-blades lined with fine vegetable hair. It was situated in tall grass.

93. CISTICOLA SUBRUFICAPILLA.

Cisticola subruficapilla Stark & Scl. Birds S. Afr. ii. p. 151.

Another was shot as it flew from the nest. This was situated in a tuft of thick grass on the ground and contained one egg and two young. The egg was transparent white with purplish-brown spots, thickest at the larger end. It measures 19×8 mm. The nest was cup-shaped and formed of woven grass, bound together and lined with silky down from plants.

94. SYLVIA CINEREA.

Sylvia cinerea Stark & Scl. Birds S. Afr. ii. p. 81.

 $a. \ \$ Feb. 15, 1908 (in full moult).

The Whitethroat appears to have been only once previously recorded from South Africa. It was obtained at Otniovapa in Damaraland by Andersson on January 12, 1867.

95. Phylloscopus trochilus.

Phylloscopus trochilus Stark & Scl. Birds S. Afr. ii. p. 84. a. March 22, 1908.

96. Dryodromas fulvicapilla.

Cisticola fulvicapilla Stark & Scl. Birds S. Afr. ii. p. 141. a. Jan. 8, 1908. "Umdonya."

I took a nest of this bird, which is a plentiful resident, on March 14, 1908. It was situated in the fork of a low bush about one foot from the ground, and contained three eggs of a very pale blue colour with minute spots of reddish brown, thicker at one end. They measured 16×11.5 mm. The nest was composed of soft grass and woolly seeds of plants, and formed a deep cup-shaped structure.

97. Sylviella rufescens.

Sylviella rufescens Stark & Scl. Birds S. Afr. ii. p. 115.

Common. Usually found in the thickest trees, where it hunts up and down the trunk or among the branches in a very active manner. Frequents gardens occasionally.

98. Eremomela polioxantha.

Eremomela polioxantha Stark & Scl. Birds S. Afr. ii. p. 108.

*a. &. Nov. 16, 1907.

b. ♀. March 22, 1908.

c. \circ . June 9, 1908.

This species is by no means uncommon here. I have seen it flying in small parties from bush to bush. resembles Sylviella rufescens in habits.

99. Camaroptera sundevalli.

Camaroptera sundevalli Stark & Scl. Birds S. Afr. ii. p. 113.

a. ♀. Dec. 26, 1907.

I found a nest of this species on December 26, 1907. It contained two transparent white eggs with faint brownish plum-coloured blotches. The eggs measured 18×12 mm. The nest was a purse-shaped structure of very fine grass, bound together and attached by fine silk vegetable fibres to the leaves and stems of a nettle-like plant. It was about eighteen inches from the ground. The female was shot as it flew from the nest.

100. Prinia flavicans.

Prinia flavicans Stark & Scl. Birds S. Afr. ii. p. 136.

" Uboiyana."

A nest of this bird taken at Belle Vue Farm on March 1, 1908, contained two eggs. The nest was purse-shaped, domed. with an entrance at the side, and composed of fine grasspeelings, curled, twisted, and woven together. It was situated in the fork of a tree about three and a half feet from the ground. The eggs were of a pale bluish-green colour, with spots, blotches, and scribblings of chocolate and paler brown. They measured 16×12 mm.

101. PRINIA MYSTACEA.

Prinia mystacea Stark & Scl. Birds S. Afr. ii. p. 135.

a. ♂. May 2, 1907.

102. Eurocephalus anguitimens.

Eurocephalus anguitimens Stark & Scl. Birds S. Afr. ii. p. 13.

*a. \(\text{Jan. 26, 1908.} \)

b. ♀. May 17, 1908.

Rare. The stomach of specimen b contained remains of beetles.

103. PRIONOPS TALACOMA.

Prionops talacoma Stark & Scl. Birds S. Afr. ii. p. 51.

a. d. May 5, 1907. "Ihlolanyama."

b. ♀. May 27, 1908.

Fairly common. Always seen in parties of from ten to twenty or twenty-five. It is very difficult to get within gunshot-range of these birds; they settle on low bushes, and before one can get close enough to them they fly on a short distance ahead and settle again. I wasted about an hour one day trying to get a shot at a flock. On the other hand, they are also very bold, as the following incident will shew:—A few weeks ago a man happened to wound one of a party of these birds, and the cries it made as he carried it in his hand brought the other members of the flock to the rescue. One of them actually flew at him and pecked his cap.

104. LANIUS MINOR.

Lanius minor Stark & Scl. Birds S. Afr. ii. p. 9. Specimens were obtained in November 1907.

105. Lanius subcoronatus.

Lanius subcoronatus Stark & Scl. Birds S. Afr. ii. p. 9.

a. ♀. Feb. 8, 1908.

It is almost impossible to distinguish between this and the succeeding species in the wild state; but individuals belonging to one of them, or perhaps both, may often be seen perched on the telegraph-wires or on the tops of bushes.

106. LANIUS COLLARIS.

Lanius collaris Stark & Scl. Birds S. Afr. ii. p. 6.

Not uncommon. The stomach of one contained a number of large spiders.

107. LANIUS COLLURIO.

Lanius collurio Stark & Scl. Birds S. Afr. ii. p. 11.

"Ukonchalakoncha."

Extremely common from November to March. Generally seen perched in a very conspicuous position on a thorn-bush. I saw a nest of this species near Bulawayo on January 29th. It was built in a thorn-tree about 4 feet from the ground and contained three white eggs with small black markings.

108. Chlorophoneus chrysogaster.

Laniarius sulphureipectus Stark & Scl. Birds S. Afr. ii. p. 40.

a. d. June 8, 1908.

Rare. Caterpillars and remains of large ants in its stomach.

109. Laniarius guttatus (Hartl.).

Dryoscopus guttatus Stark & Scl. Birds S. Afr. ii. p. 28.

a. J. May 2, 1908.

b. J. May 3, 1908.

c. May 10, 1908.

Uncommon.

110. Laniarius atrococcineus.

Laniarius atrococcineus Stark & Scl. Birds S. Afr. ii. p. 31. Not uncommon, but shy and seldom seen. Its bright red underparts render it a very conspicuous object in the bush. Occasionally it descends to the ground to feed: one was

Occasionally it descends to the ground to feed: one was shot while feeding among thick grass on the ground, and in its stomach were found ants, beetles, and caterpillars. 111. TELEPHONUS SENEGALUS.

Telephonus senegalus Stark & Scl. Birds S. Afr. ii. p. 19. "Umgubane."

A fairly common resident. It may often be disturbed while feeding on the ground. It then flies off to the nearest bush with its tail widely spread and the subterminal band of white shewing very conspicuously. Its legs are pale grey, as stated by Marshall.

Two nests taken near Bulawayo on December 9th were each formed of fine twigs wound round into a neat shallow cup, having an internal diameter of about $3\frac{1}{2}$ inches. They were resting on the horizontal branches of bushes and only two or three feet off the ground. These nests contained two and three eggs respectively. They are white with small chocolate-coloured splashes and blotches, and measure 24×18.5 mm.

A nest found on January 2 contained two chicks.

112. Telephonus australis.

Telephonus australis Stark & Scl. Birds S. Afr. ii. p. 22. "Umgubane."

Bill black; legs and feet pale grey; iris silvery white or a very light grey. Like the preceding species, a common resident. Its habits are also very similar to those of *T. senegalus*. A nest containing two eggs was taken on December 26. It was almost identical in construction and position with those of its ally. The eggs, again, only differ in being slightly smaller.

113. NILAUS BRUBRU.

Nilaus brubru Stark & Scl. Birds S. Afr. ii. p. 16.

a. ♀. May 30, 1908.

Rare. Locusts and grasshoppers in the stomach.

114. PARUS AFER.

Parus afer Stark, Birds S. Afr. i. p. 305.

Not frequently met with.

115. CINNYRIS MARIQUENSIS.

Cinnyris mariquensis Stark, Birds S. Afr. i. p. 279.

"Intjenwana," a name used for all the Sun-birds.

Very common, perhaps the commonest of our Sun-birds. This species, with *C. chalybeus* and *Chalcomitra gutturalis*, frequents gardens in the town and suburbs, attracted by the flowers

116. CINNYRIS CHALYBEUS.

Cinnyris chalybeus Stark, Birds S. Afr. i. p. 284.

Very common. This species, with *C. mariquensis* and *Chalcomitra gutturalis*, seems to be more numerous and active during April and May. They appear to be partial to the wild mistletoe, which grows on a number of trees on the Commonage.

117. CHALCOMITRA GUTTURALIS.

Cinnyris gutturalis Stark, Birds S. Afr. i. p. 286.

a. 3 imm. May 10, 1907.

b. J. April 14, 1908.

Common, though not quite so numerous as Cinnyris mariquensis and C. chalybeus.

The plumage of a is very similar to that of the adult female, except that the scarlet breast of the adult male is present.

118. CINNYRIS LEUCOGASTER.

Cinnyris leucogaster Stark, Birds S. Afr. i. p. 281.

a. d. May 5, 1907.

Uncommon. I saw one on June 1 at Belle Vue. It was hopping briskly among the branches of some thick bushes and uttering a subdued *tweet-tweet* all the while.

119. Zosterops anderssoni.

Zosterops anderssoni Stark, Birds S. Afr. i. p. 300.

a. d. June 29, 1907.

Rare. The only example seen.

120. MOTACILLA CAPENSIS.

Motacilla capensis Stark, Birds S. Afr. i. p. 259.

a. d. June 8, 1908. "Umvemve."

Rare. I have only seen this species once or twice, and each time it was close to water. Ants were found in the stomach of this example.

121. Anthus trivialis.

Anthus trivialis Stark, Birds S. Afr. i. p. 247.

a. \(\text{\$\gamma\$} \). Feb. 18, 1908.

122. Anthus Rufulus.

Anthus rufulus Stark, Birds S. Afr. i. p. 251.

"Umnceln."

This Pipit is extremely common, and is found feeding on all the roads in and around the town. Its coloration then renders it almost invisible, and the bird seems to be conscious of this means of protection, for it does not attempt to fly away until one is within a few feet of it, and even then it generally runs off in a crouching manner and takes refuge in the grass at the sides of the road.

123. Anthus Pyrrhonotus.

Anthus pyrrhonotus Stark, Birds S. Afr. i. p. 250.

a. ♀. Feb. 9, 1908.

This example is just attaining the adult plumage, and still shews remains of the young dress.

124. Anthus vaalensis.

Anthus vaalensis Shelley, Birds Afr. ii. p. 311 (1900).

a. ♀. May 2, 1907.

125. MIRAFRA SABOTA.

Mirafra sabota Stark, Birds S. Afr. i. p. 208.

Examples have been obtained in January, February, May, and July.

126. MIRAFRA AFRICANA.

Mirafra africana Stark & Sel. Birds S. Afr. i. p. 212.

"Indayila"

This species is not uncommon during the winter months, when it may be seen feeding in the roads, always singly.

127. Mirafra nigricans.

Mirafra africans Stark, Birds S. Afr. i. p. 207.

a. 9. Jan. 5, 1908.

b. ♀. Feb. 10, 1908.

These examples are in their first year's plumage. So far as I am aware, this species has not been previously recorded in Southern Rhodesia.

128. Pyrrhulauda smithi.

Pyrrhulauda smithii Stark, Birds S. Afr. i. p. 196.

Very common, especially during the winter months, when it may be seen feeding in numbers in the streets—reminding one of the Common English Sparrow (*Passer domesticus*) in its ways.

129. Poliospiza angolensis.

Serinus angolensis Stark, Birds S. Afr. i. p. 178.

"Intagane."

A common bird throughout the year. Small seeds were found in the stomach of one that I examined. A female was shot as it flew from the nest, which was a shallow cupshaped structure of fine twigs bound together with hair and wool, and attached to a horizontal branch of a Syringa-tree about six feet from the ground. The nest measures two inches internal diameter. It contained three white eggs with very fine indistinct pale brown markings, measuring 17×12.5 mm.

130. Poliospiza gularis.

Poliospiza gularis Stark, Birds S. Afr. i. p. 165.

Often found in company with Serinus sulphuratus. They are both very partial to the seeds of the sunflower.

131. SERINUS SULPHURATUS.

Serinus sulphuratus Stark, Birds S. Afr. i. p. 169.

a. 3. April 10, 1908.

This species is common in and near Bulawayo, although I have not been able to shoot one up to the present. The only example in the Museum collection lived for some time in captivity.

132. Serinus icterus.

Serinus icterus Stark, Birds S. Afr. i. p. 173.

*a. \(\cdot \). Sept. 8, 1907.

*b. ♀. Nov. 22, 1907.

133. SERINUS SHELLEYI.

Serinus shelleyi, Neumann, Orn. Monatsb. xi. p. 184 (1903). a. \circ . July 28, 1907.

134. Emberiza flaviventris.

Emberiza flaviventris Stark, Birds S. Afr. i. p. 184. Not uncommon.

135. FRINGILLARIA TAHAPISI.

Fringillaria tahapisi Stark, Birds S. Afr. i. p. 189.

*a. ♀. Nov. 26, 1907.

136. Hypochera funerea.

Hypochera funerea Stark, Birds S. Afr. i. p. 153.

*a. &. Dec. 9, 1907.

b. d. Jan. 12, 1908.

*c. d. Feb. 29, 1908.

Uncommon. b was shot in a thorn-bush.

a is in changing plumage; there are some brown feathers on the back and some white ones on the underside intermingled with the black.

Bill white; legs and feet flesh-colour; iris very dark brown. The stomach of b contained small seeds.

137. VIDUA PARADISEA.

Vidua paradisea Stark, Birds S. Afr. i. p. 149.

"Umasiyabundu."

A common resident, and like *Tetrænura regia* is in the summer a prominent feature of our bird-life. The males begin to don their bright livery early in November and lose it again in March. One shot on November 25 is already in full dress, except that the long tail-feathers are not yet developed.

During the summer the males are usually met with separately, accompanied by their hosts of females, but occasionally two or three cocks may be seen together, and I once (Jan. 5) saw a flock of about twenty-five males all in full plumage.

Although their diet consists chiefly of small seeds, it is varied sometimes by insects. Mr. Mennell tells me he once saw a number of males and females devouring flying termites as they swarmed from a hole in the ground.

138. VIDUA REGIA.

Vidua regia Stark, Birds S. Afr. i. p. 143.

"Intaga."

Common, and very conspicuous during the breeding-season. The full plumage is assumed during November, and the long tail-feathers are shed again at the beginning of May, otherwise the summer dress persists throughout May until June.

139. VIDUA SERINA.

Vidua principalis Stark, Birds S. Afr. i. p. 145.

Occasionally met with near Bulawayo. I have seen several examples of it in aviaries and have been told that they were caught close to the town.

140. EUPLECTES XANTHOMELAS.

Pyromelana capensis xanthomelæna Stark, Birds S. Afr. i. p. 133.

"Isigwe."

A common resident. The males commence to assume their breeding-plumage at the beginning of November: one of them has some white feathers on the breast and abdomen, and some brown ones on the head and back, interspersed among the black. They must begin to lose their summer garb in March, for I have seen them in full plumage in February, but examples shot on the 18th April, 20th and 25th of May are all in their light brown winter dress, although the yellow on the wing-coverts and rump is still quite bright. Unlike Pyromelana sundevalli, this bird usually builds away from water and singly. A nest taken on January 27th was found in tall grass two or three miles from water. It was made of fine grass and formed into a sphere, about 21 inches internal diameter, with a circular opening on one side. There were three eggs, bluish green in colour with numerous dark brown spots and splashes. measure 19 x 14 mm.

141. PYROMELANA TAHA.

Pyromelana taha Stark, Birds S. Afr. i. p. 128.

I saw a male of this species, in breeding-plumage, in an

aviary on March 30. It had been caught near the town, and is said to have been very common here a few years ago.

142. Pyromelana sundevalli.

Pyromelana oryx Stark, Birds S. Afr. i. p. 126.

"Isigwe ubonvu."

Common, noticeably so during the summer. It nests in reeds near water, from the end of November to March; and by the end of April the gorgeous breeding-plumage is entirely lost. There is a colony with some hundred nests near the Waterworks reservoirs. The newly hatched chicks have a pink skin with a few straggly yellow down-feathers.

143. QUELEA QUELEA.

Quelea quelea Stark, Birds S. Afr. i. p. 122.

Very common during the winter, when it congregates in large flocks. I saw one among a colony of *Pyromelana* sundevalli last December.

144. Amadina erythrocephala.

Amadina erythrocephala Stark, Birds S. Afr. i. p. 118 (1900).

This species is not uncommon, and is often caught for aviaries. I have no knowledge of its breeding here.

145. Zonogastris melba.

Pytelia melba Stark, Birds S. Afr. i. p. 89.

" Uwatwatwayana."

A very common resident. Usually seen in pairs during the summer, but in winter often associating with the flocks of *Sporopipes squamifrons*.

The young male resembles the adult females, except that the barring on the breast and abdomen is only faintly indicated and the wash of olive on the back is much paler.

146. Sporopipes squamifrons.

Sporopipes squamifrons Stark, Birds S. Afr. i. p. 86. "Indhlala."

An exceedingly common species throughout the year.

It breeds from October to the end of March, forming a loosely constructed nest of grass-tops, usually placed in thorn-bushes. Its cry is a gentle twit-twit.

147. Ortygospiza polyzona.

Ortygospiza polyzona Stark, Birds S. Afr. i. p. 109.

a. d. Aug. 9, 1907.

Uncommon. The upper mandible of this specimen is black and only the lower one is red.

148. LAGONOSTICTA JAMESONI.

Lagonosticta jamesoni Stark, Birds S. Afr. i. p. 93.

a. d. April 10, 1908.

This species is scarce here. The present example, the only one I have seen, was caught close to the town and lived for some time in captivity. Its tail measures 2.7 inches.

149. Estrilda astrilda.

Estrilda astrilda Stark, Birds S. Afr. i. p. 98.

Fairly common. The only example in our collection was purchased alive.

150. Estrilda erythronota.

Estrilda erythronota Stark, Birds S. Afr. i. p. 100.

a. ♀. May 29, 1907.

b. Aug. 21, 1907.

151. ESTRILDA ANGOLENSIS.

Estrilda angolensis Stark, Birds S. Afr. i. p. 102.

"Icecetwana."

Very common throughout the year. Two nests were taken close to the town, one on January 27th and the other on February 15th. They were similarly constructed of fine grass-tops, loosely put together and lined with a few feathers. They contained four and five pure white eggs respectively.

152. Estrilda subflava.

Estrilda subflava Stark, Birds S. Afr. i. p. 105.

a. d. June 26, 1908.

Rare; this is the only example met with.

153. ESTRILDA DUFRESNII.

Estrilda dufresnii Stark, Birds S. Afr. i. p. 107.

a. d. March 7, 1908.

Occasionally caught near the town and kept in aviaries. The example in the collection died in captivity.

154. ESTRILDA GRANATINA.

Estrilda granatina Stark, Birds S. Afr. i. p. 104.

"Ikiwane."

A common resident.

155. HYPHANTORNIS CABANISI.

Hyphantornis cabanisi Stark, Birds S. Afr. i. p. 57.

a. ♀. Nov. 29, 1907.

b. ♀. May 16, 1908.

156. Hyphantornis velatus.

Hyphantornis velatus Stark, Birds S. Afr. i. p. 58.

*a. d. Nov. 13. "Isikwe."

*b. d. Nov. 18.

*c. d. Nov. 29.

The amount of black on the forehead in these three examples varies considerably. It measures 1, 3, and 6 of an inch respectively. c has also much more black on the throat than either of the others.

This bird is common here, noticeably so during the summer, when its nests are to be seen suspended from the ends of the branches of trees, usually the common thorn-bush (*Acacia horrida*). I have also seen them attached to the ends of reeds at the water's edge.

157. ORIOLUS LARVATUS.

Oriolus larvatus Stark, Birds S. Afr. i. p. 51.

a. ♀. July 21, 1907.

b. Aug. 25, 1907.

Seen occasionally throughout the year and always singly. Bill terra-cotta; legs and feet black; iris crimson.

Large lepidopterous larvæ and remains of locusts were found in the stomach of one I examined.

158. DICRURUS AFER.

Dicrurus afer Stark & Scl. Birds S. Afr. ii. p. 265.

"Intengu."

This bird has been extremely common near the town during the last few months, viz. March, April, May, and June. It is usually seen sitting on projecting branches of trees or bushes, from which it makes short flights after passing insects, generally returning to the same position. It has a variety of different notes.

159. CINNYRICINCLUS VERREAUXI.

Pholidauges leucogaster verreauxi Stark, Birds S. Afr. i. p. 44.

*a. \(\text{Nov. 25, 1907.} \)

b. & yg. Dec. 1907.

c. 9 yg. Jan. 8, 1908.

d. 3 imm. May 11, 1908.

Iris narrow yellow. Buds of flowers were found in the stomach of one that I examined. It is not an uncommon species here, especially during the winter months, when it has been seen in parties of about a dozen, consisting chiefly of females or young males, whereas in summer the males are usually seen singly.

a although marked as a female, had several metallic-violet feathers in its plumage.

b shews traces of the appearance of the adult plumage by a few violet feathers on the neck.

d has already assumed the plumage of the mature bird, but the gape is still yellow, an evidence of youth.

160. Lamprocolius bispecularis.

Lamprocolius phænicopterus bispecularis Stark, Birds S. Afr. i. p. 39.

a. Bulawayo, ?. April 24, 1907. "Ikwezi."

b. ,, Aug. 30, 1907.

Very common and generally seen in large flocks.

When a flock is feeding on the ground, first one bird and

then another will fly a foot or two off the ground and settle again directly. It may be that they are in this way looking out for danger.

They always perch in very prominent positions on trees and for this reason are difficult to approach. I have heard them utter a very subdued continuous wailing cry.

161. Corvultur albicollis.

Corvultur albicollis Stark, Birds S. Afr. i. p. 10.

"Iwabai l'intaba."

This Crow has been seen flying around the granite kopjes at Hillside. It appears to be confined to the neighbourhood of hills, and more especially those of the granite formations such as we have in the Matopos about 40 miles south of Bulawayo, where I have seen this bird in great numbers.

162. Corvus scapulatus.

Corvus scapulatus Stark, Birds S. Afr. i. p. 12. "Iwabai."

An extremely common bird in the town from January to June, but during the rest of the year only a few are seen occasionally. It frequently rests in trees or on the posts supporting the electric-light wires. Its foods consists of scraps of meat or other offal, and I have also seen it hunting for ticks on donkeys' backs. It has a harsh guttural croak.

VII.—Notices of recent Ornithological Publications.

1. Allen on Bæolophus bicolor-atricristatus.

[The Bæolophus bicolor-atricristatus Group. By J. A. Allen. Bull. Am. Mus. N. H. xxiii. p. 467 (1907).]

The Tufted Titmouse of the Eastern United States (Bæolophus bicolor) is replaced in Texas and Mexico by the quite distinct species B. atricristatus. The breeding-ranges of these two species, as it has recently been discovered, overlap in Southern and Central Texas, where intermediate forms are found and have been described as new subspecies,